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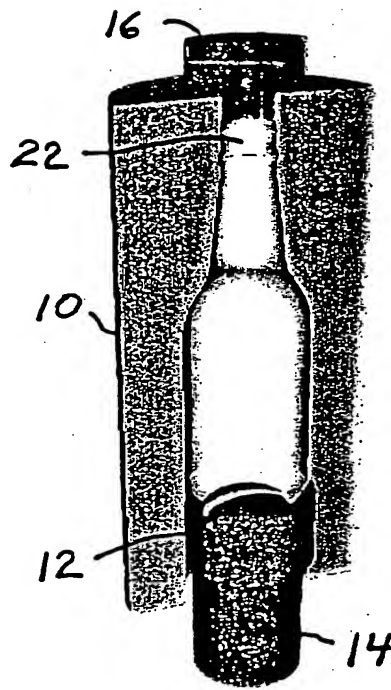
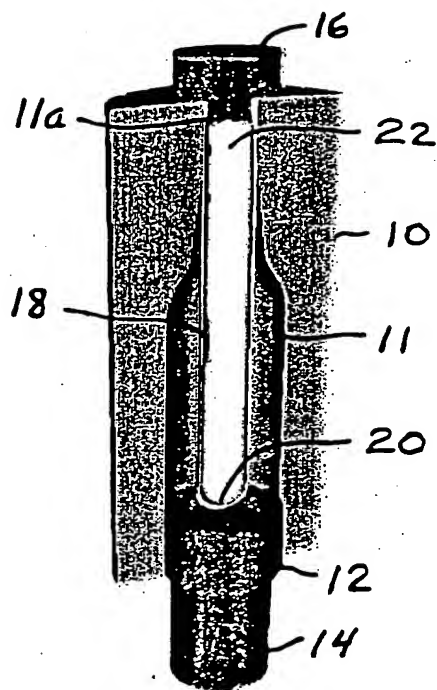
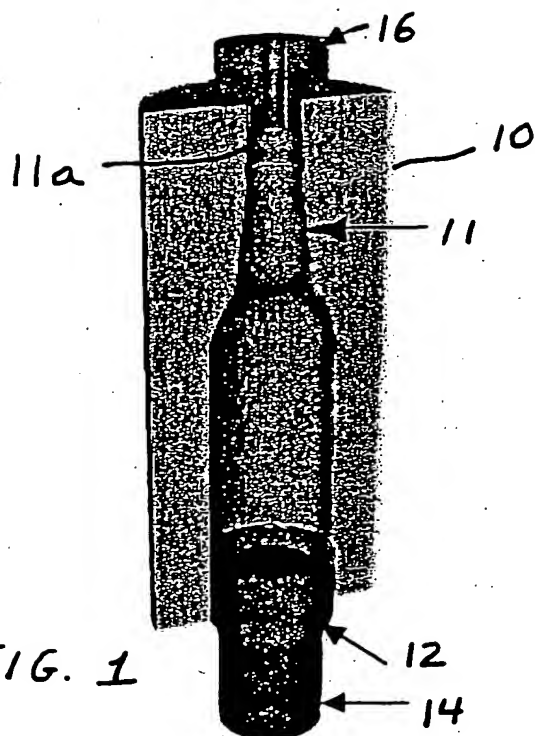
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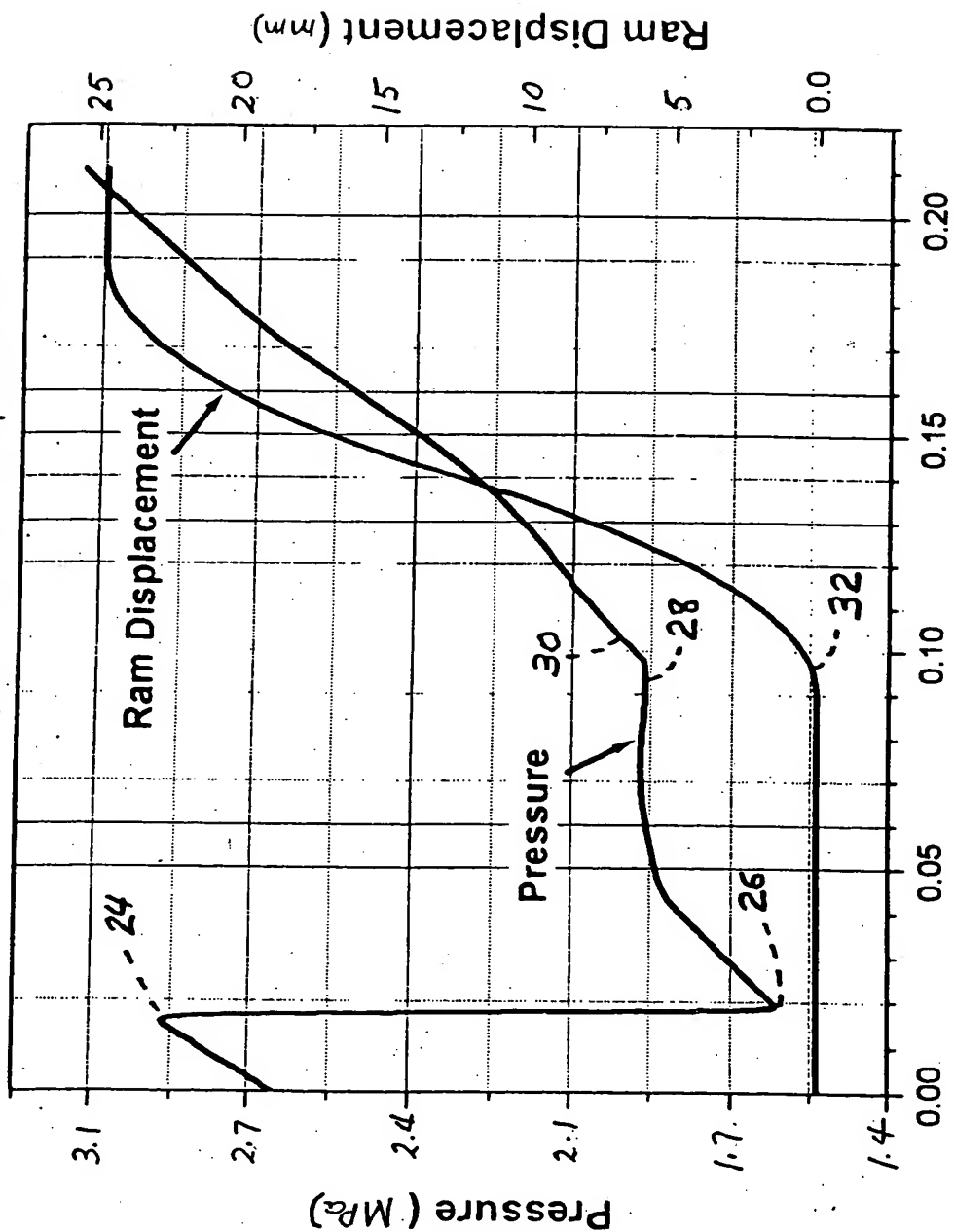
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Hydroforming Pressure Loading and Ram Displacement



Time (s) FIG. 3

Ram Displacement (mm)

Pressure (MPa)

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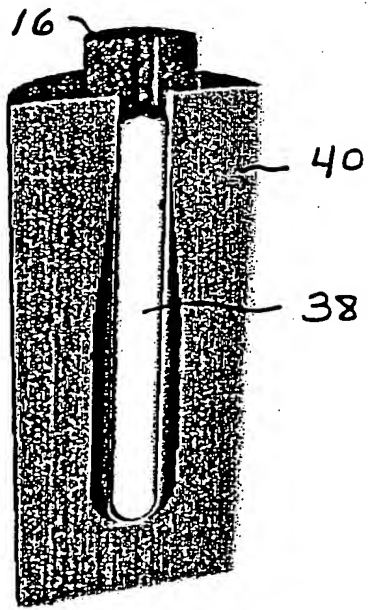


FIG. 4A

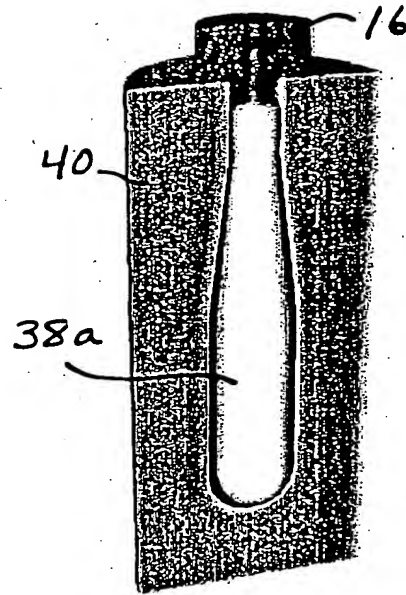


FIG. 4B

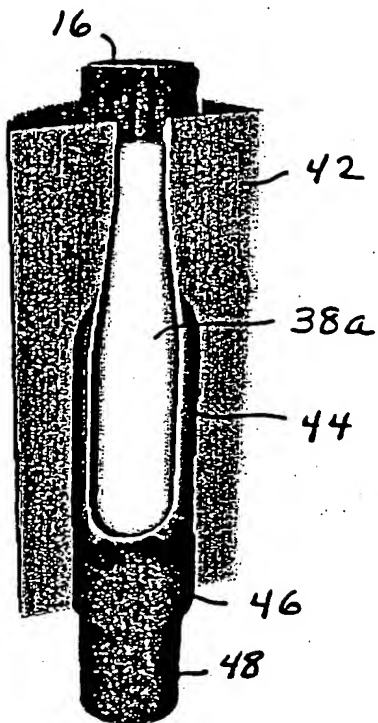


FIG. 4C

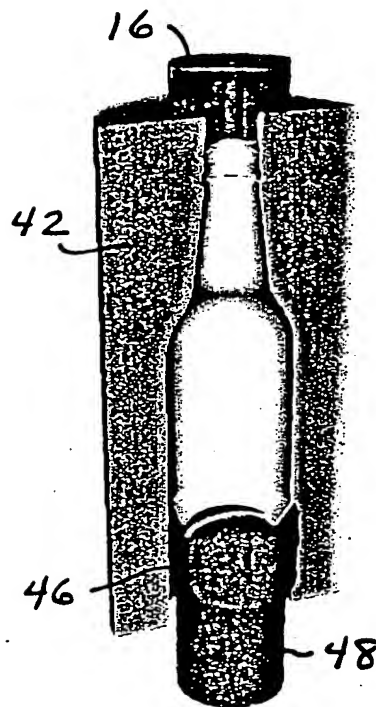
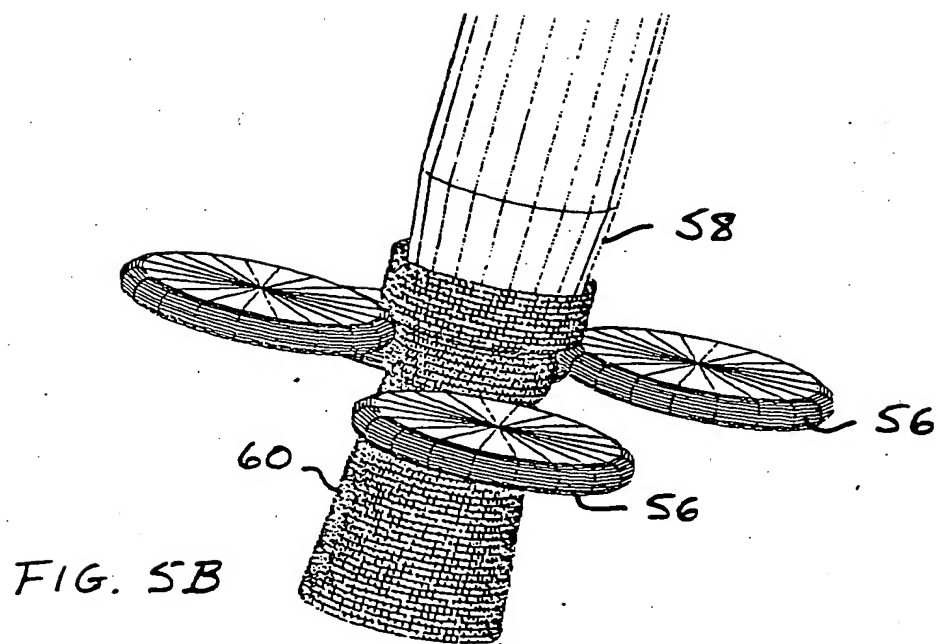
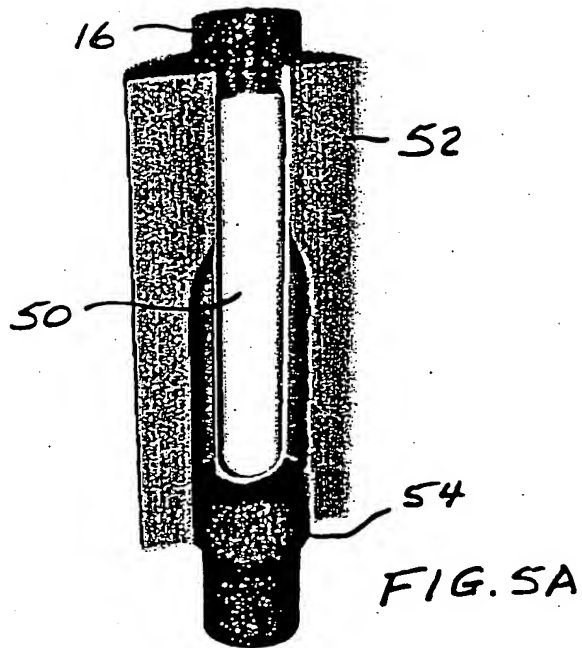
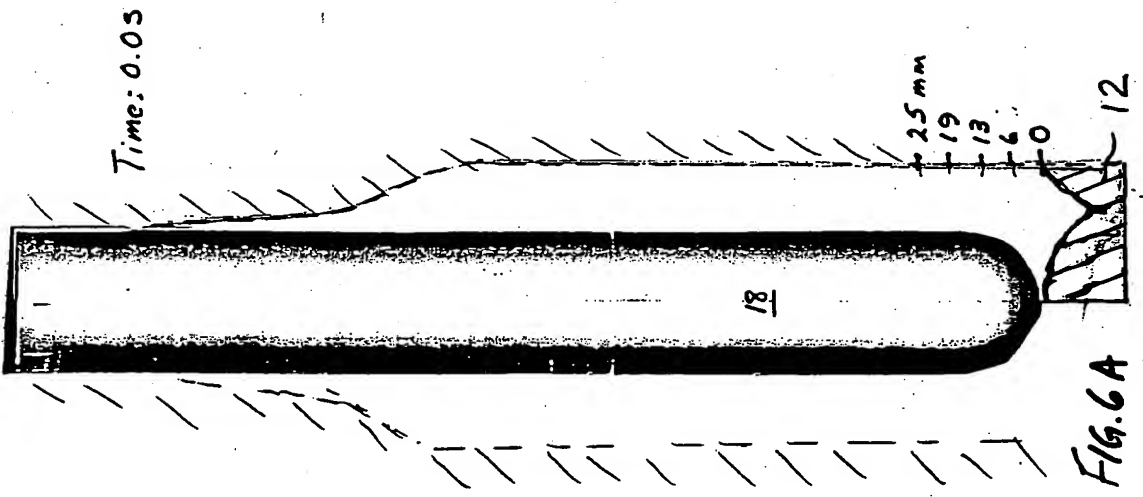
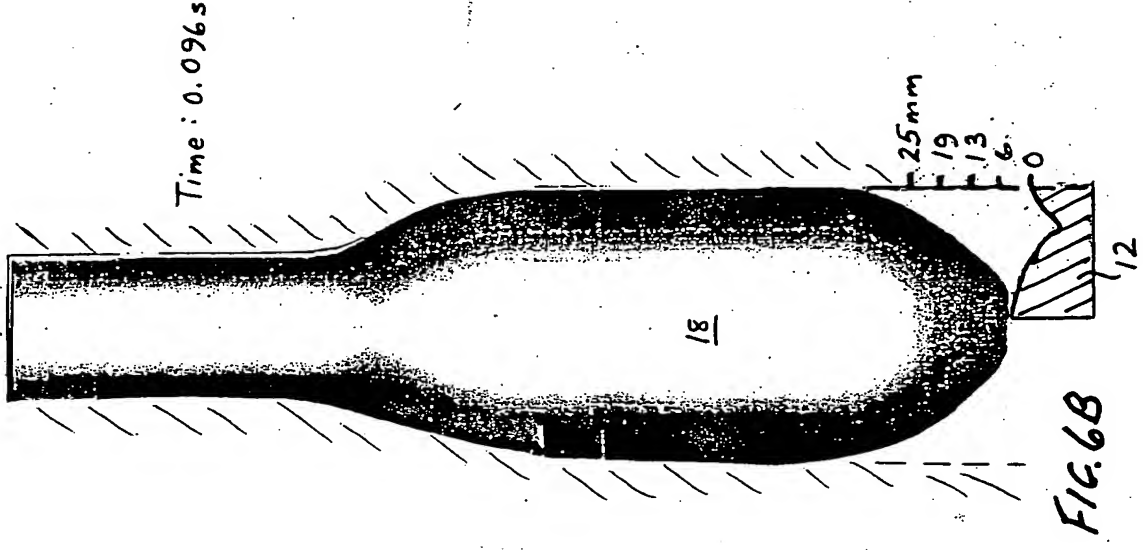
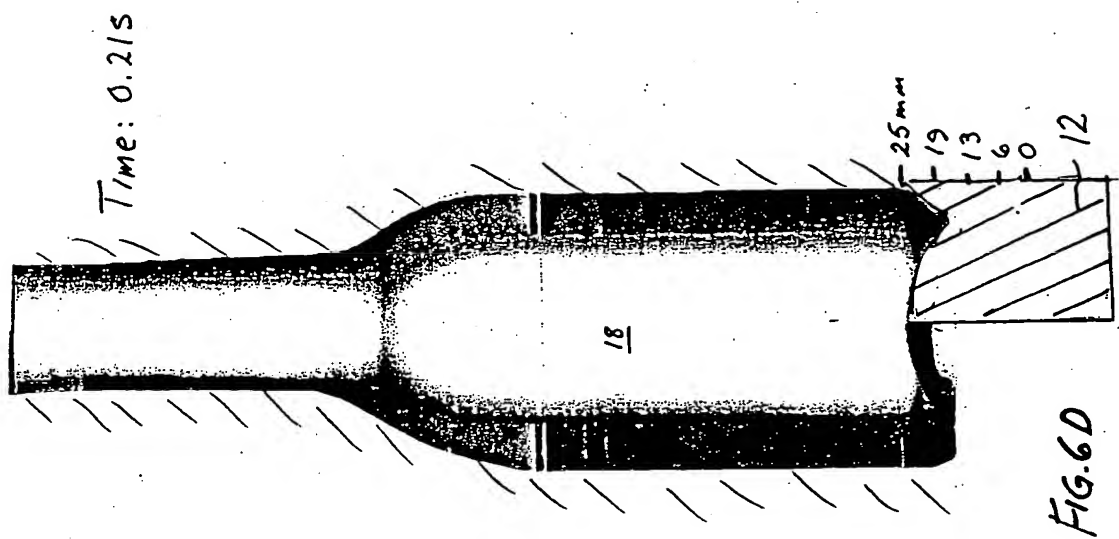
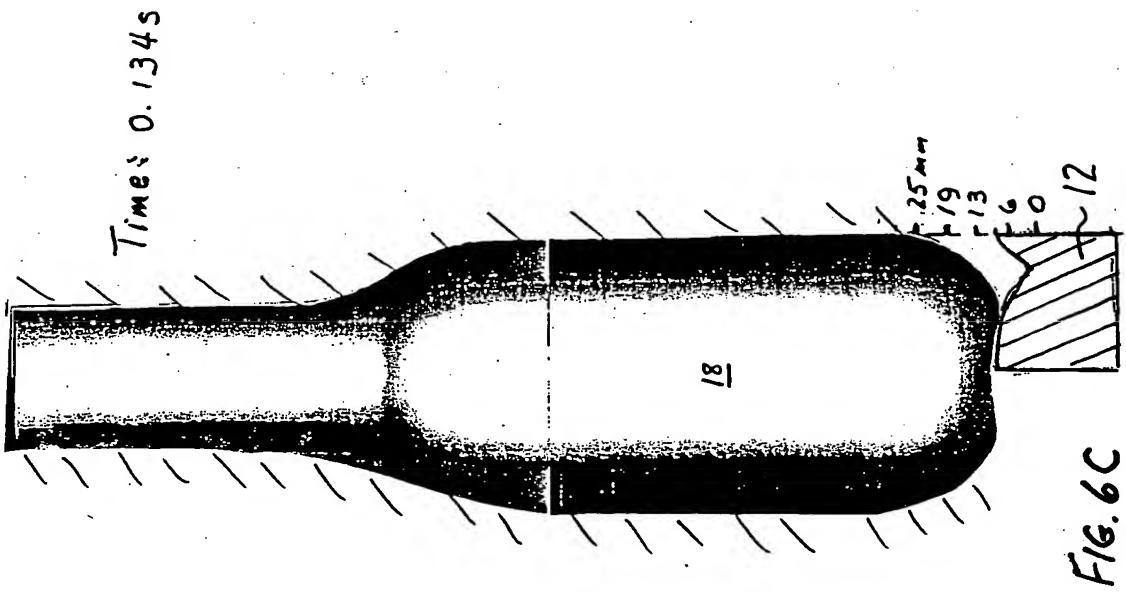


FIG. 4D







Pressure History During Forming

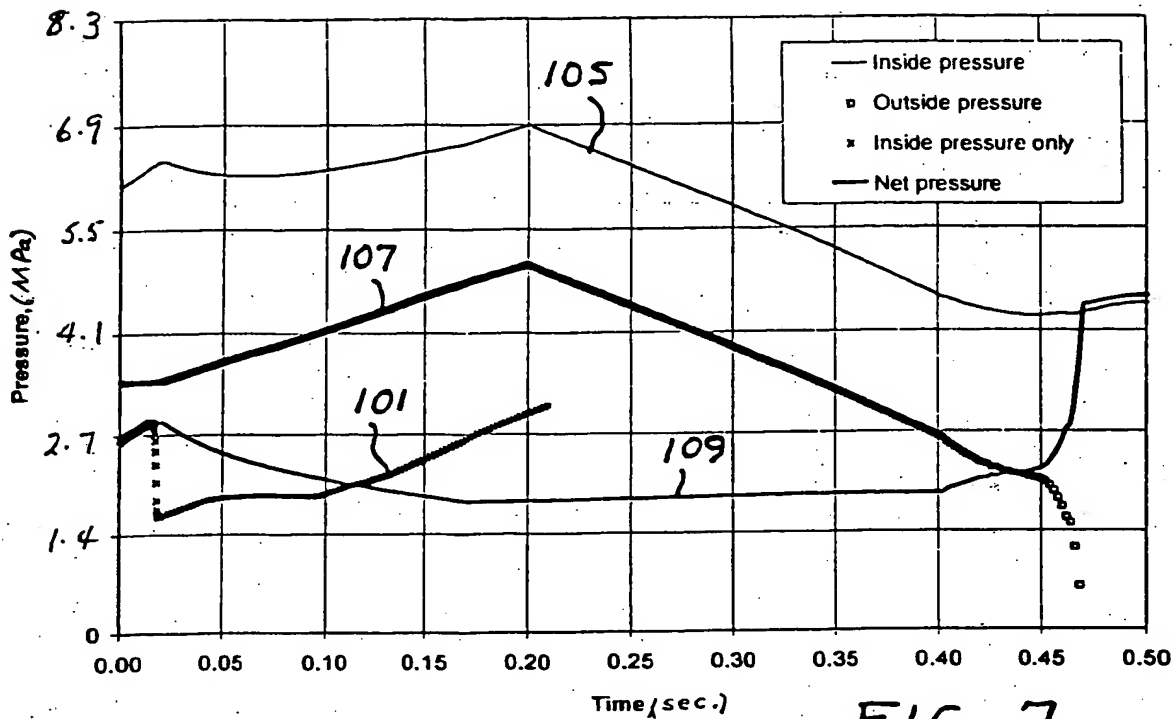


FIG. 7

Strain Variation During Forming at Element (With/without back pressure, BP)

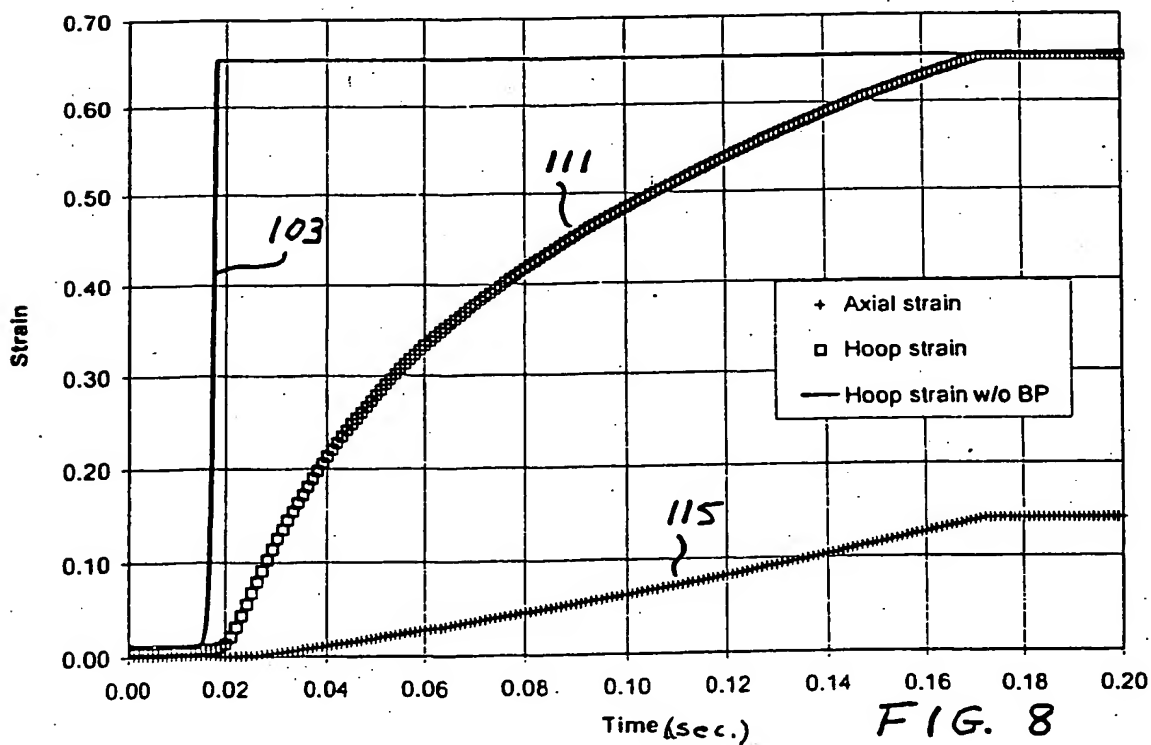


FIG. 8

Pressure history during forming
 (with strain rate dependent material property)

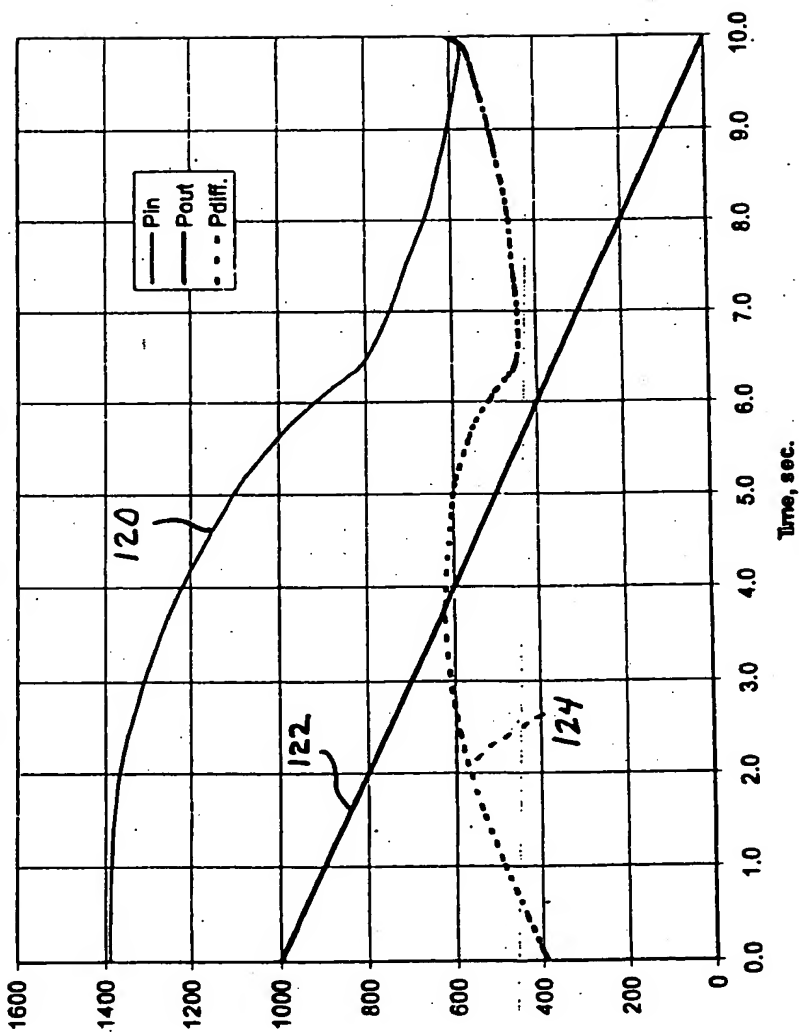


FIG. 9

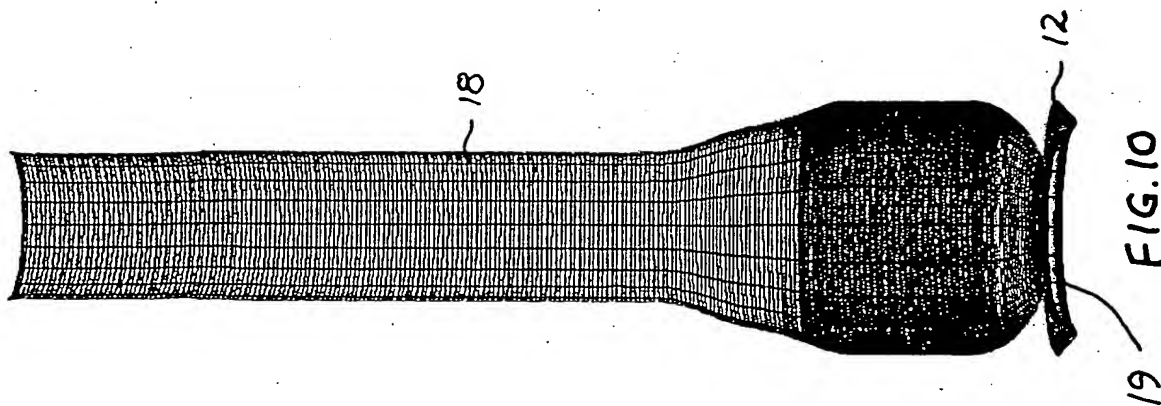


FIG. 10

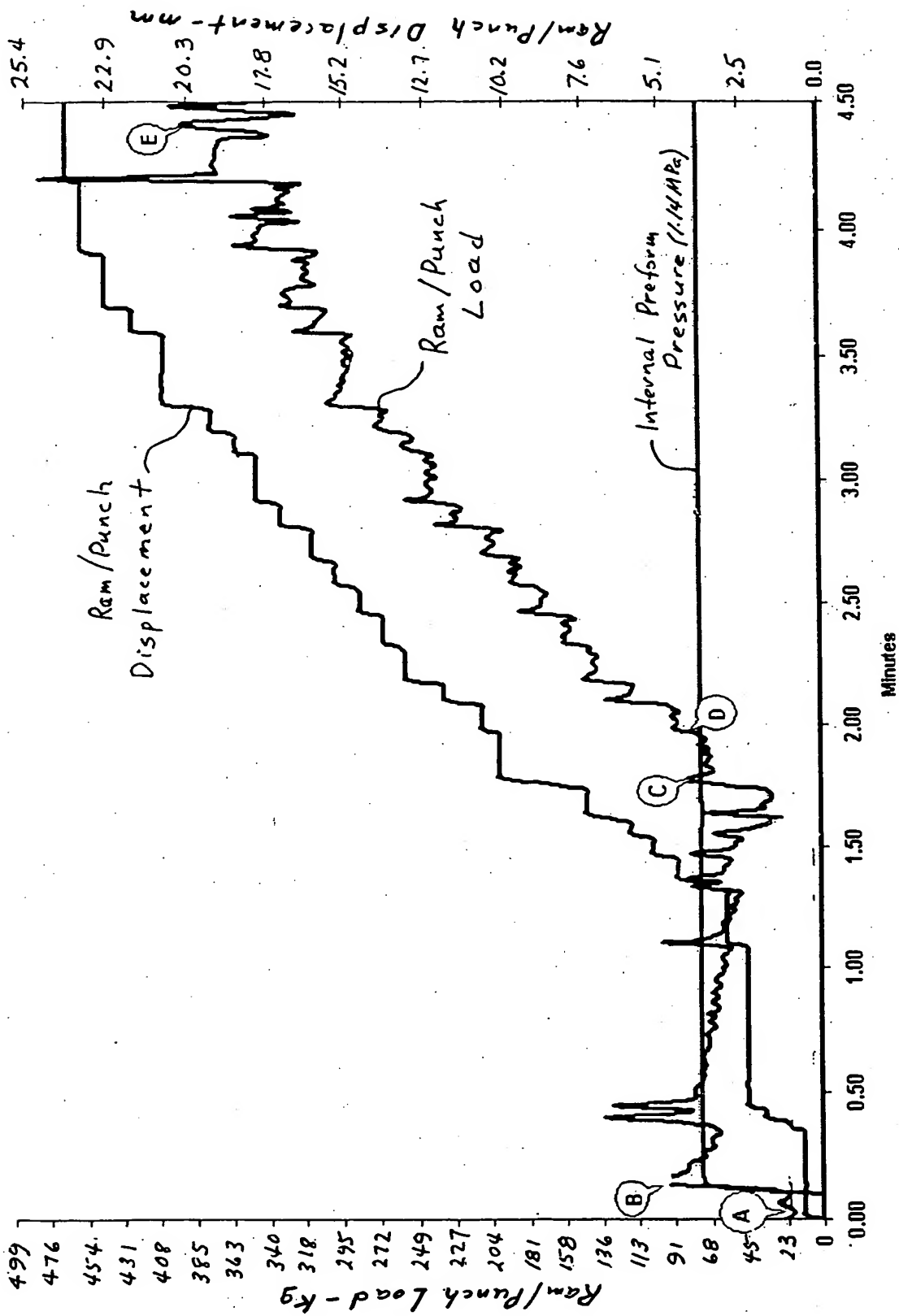


FIG. 11

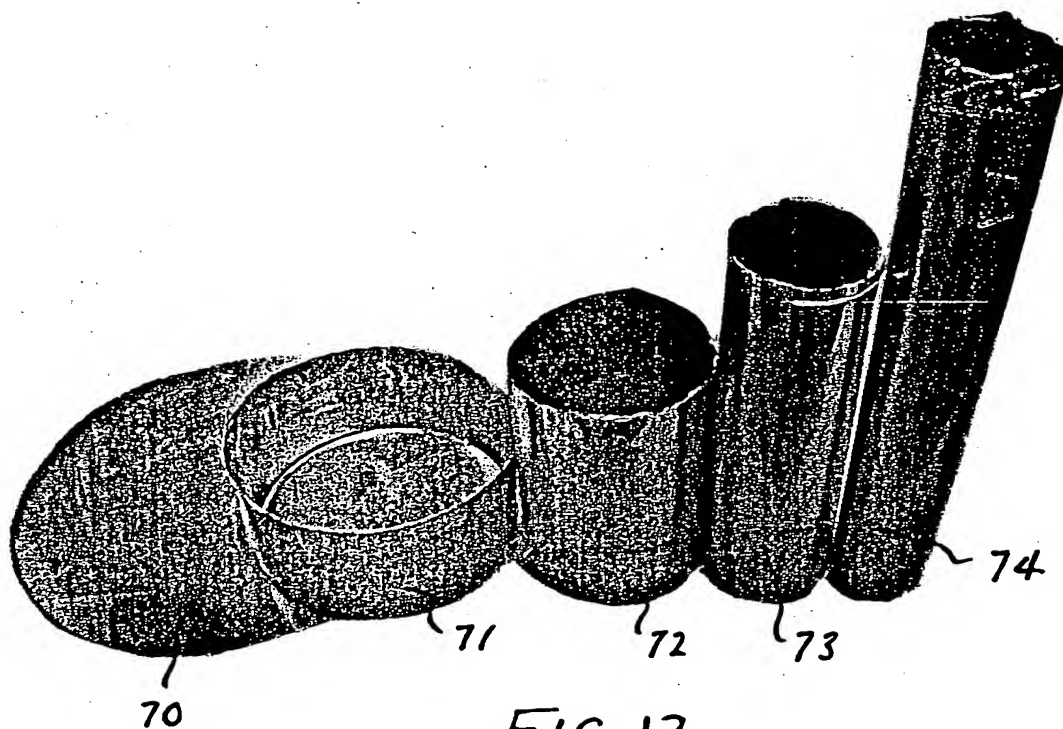


FIG. 12

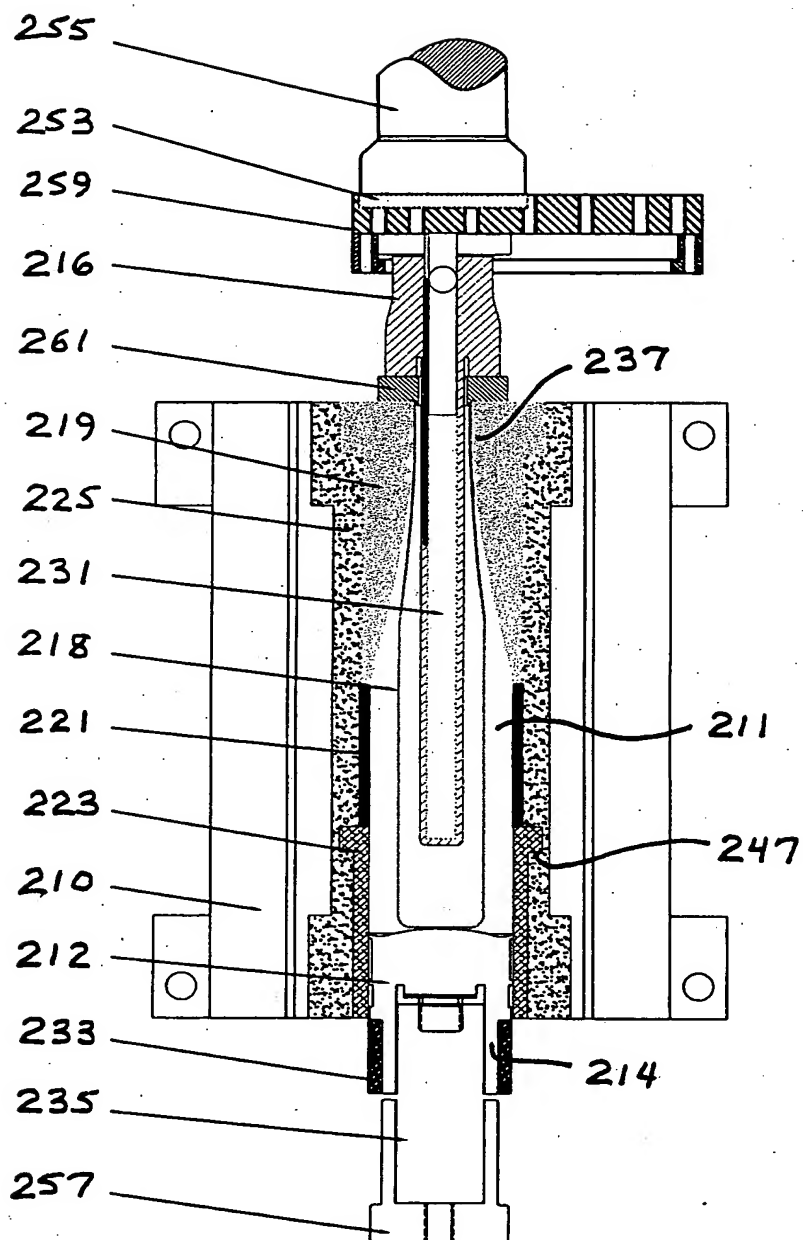


FIG. 13

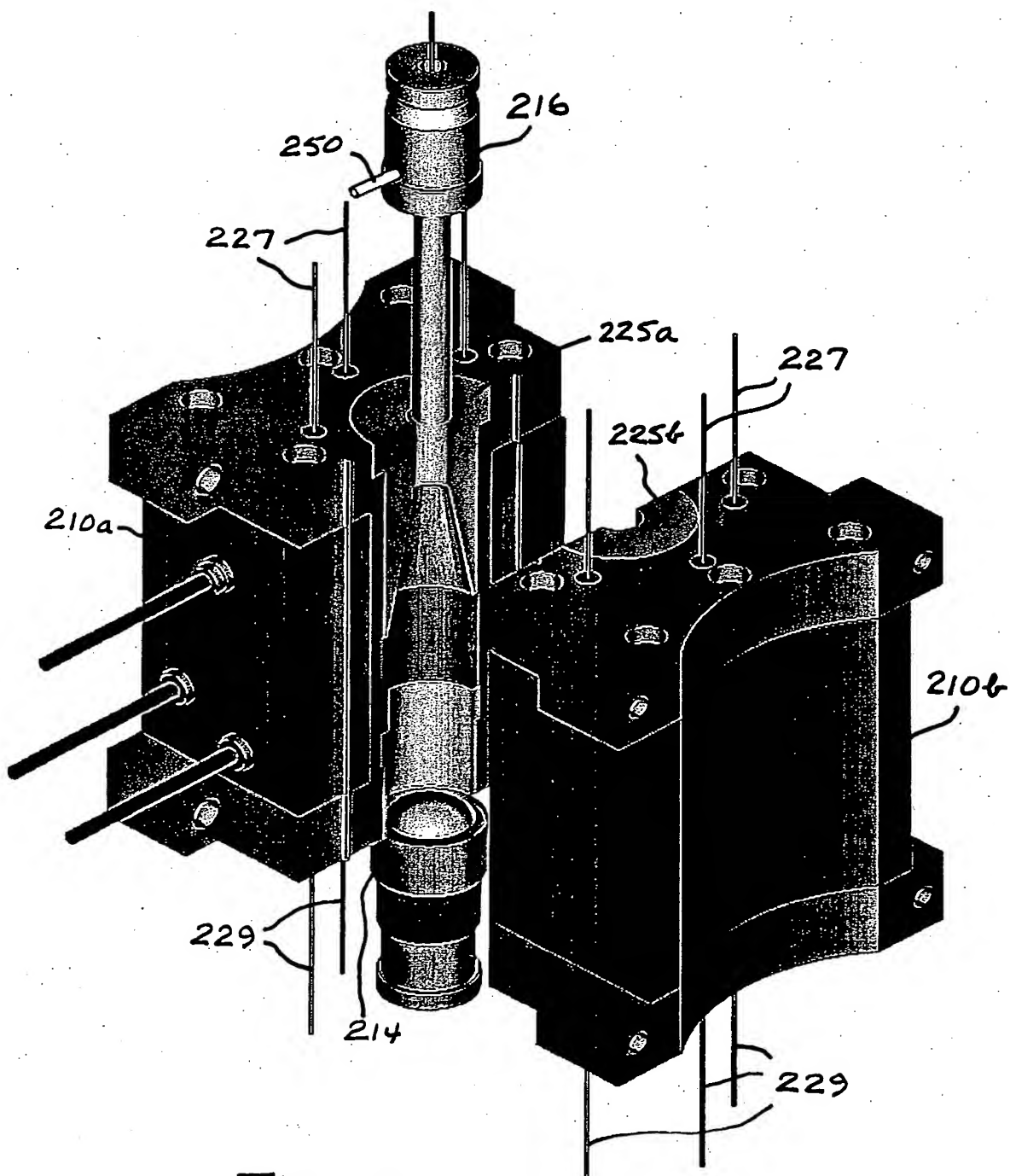
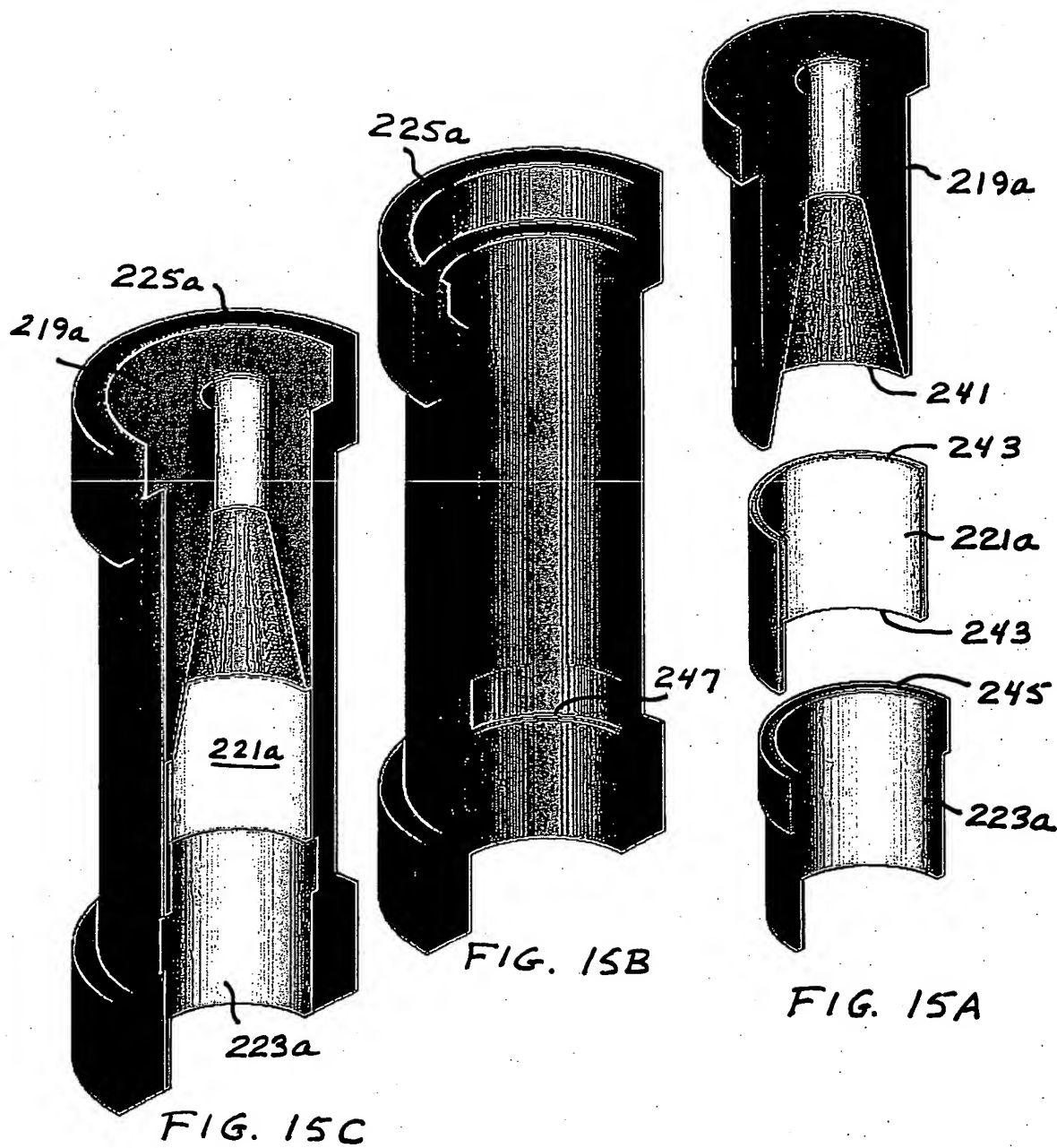


FIG. 14



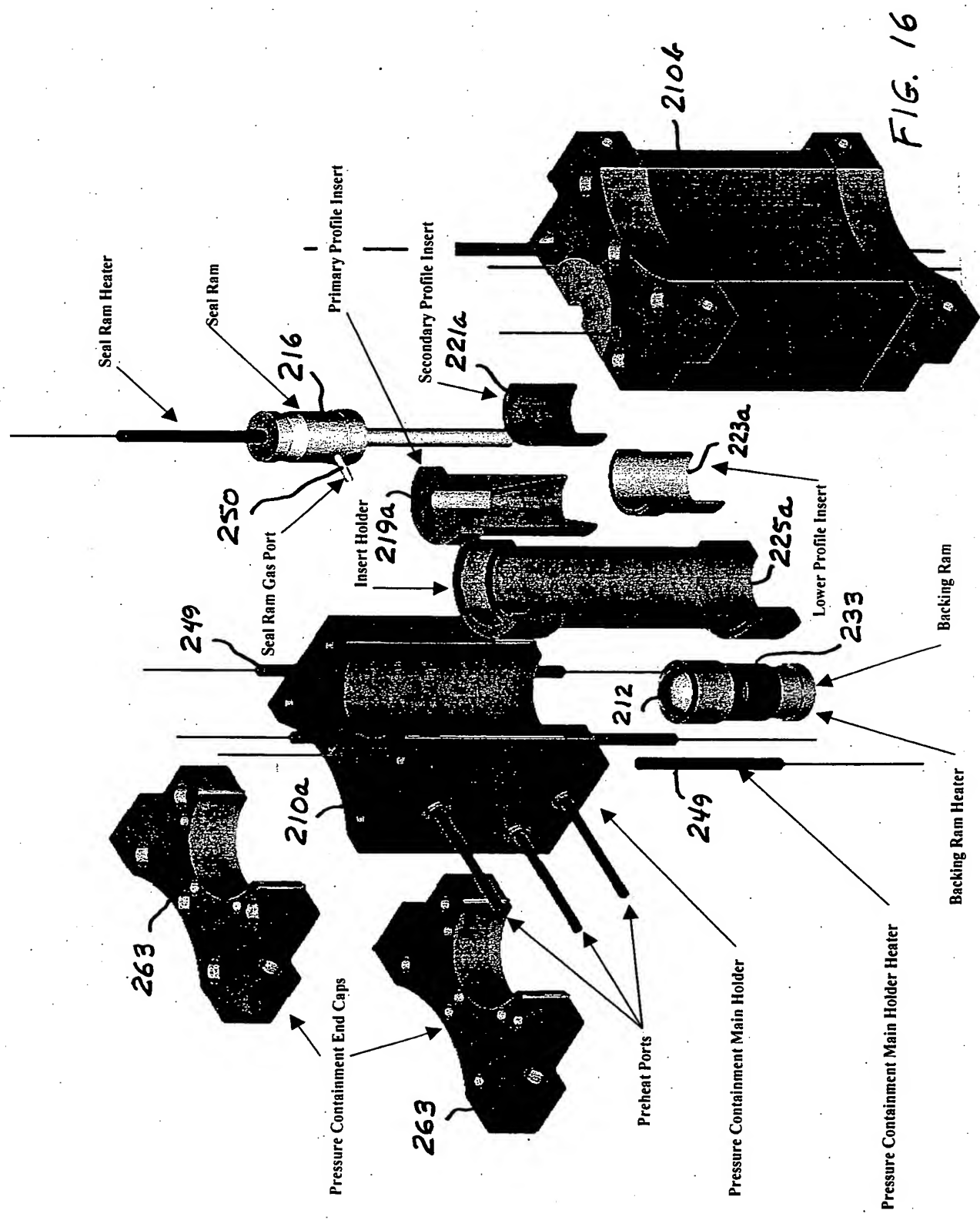


FIG. 16